Alaska Department of Fish and Game
Division of Wildlife Conservation
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Investigation of Wolf Population Response to Intensive Trapping in the Presence of High Ungulate Biomass

Mark E. McNay

Research Performance Report
1 July 2000–30 June 2001
Federal Aid in Wildlife Restoration
Grant W-27-4, Project 14.17

This is a progress report on continuing research. Information may be refined at a later date.

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF WILDLIFE CONSERVATION
PO Box 25526
Juneau, AK 99802-5526

PROJECT TITLE: Investigation of Wolf Population Response to Intensive Trapping in the Presence of High Ungulate Biomass

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GRANT AND SEGMENT NR: W-27-4

PROJECT NR.: 14.17

SEGMENT PERIOD: 1 July 2000–30 June 2001

STATE: Alaska

WORK LOCATION: Unit 20A

I. PROGRESS ON PROJECT OBJECTIVES

OBJECTIVE 1: Document the effects of intensive trapping on wolf pack structure and viability based on a) breeding characteristics and productivity, b)ages and rates of dispersal, c) causes and rates of natural mortality, and d) spatial distribution of individuals and packs.

Between March 1995 and the present, we radiocollared 149 of 183 wolves in Unit 20A. We monitored reproductive success of 40 female wolves by ultrasound during pregnancy and then we monitored survival of their litters through winter. Fifty-four ultrasound scans were completed, some wolves were scanned in during 3 consecutive years.

Since September 1996 we purchased carcasses of wolves killed in the study area by hunters and trappers. We conducted postmortem examinations on 155 wolves and recorded body condition, reproductive condition, age and sex. Most of those animals were purchased from trappers and pack affiliation was known for most of those specimens.

OBJECTIVE 2: Evaluate those effects relative to current wolf harvest management practices in consideration of public concerns regarding the potential for long-term ill effects arising from human exploitation of wolves.

Between 1993 and 2000 the autumn wolf population within the study area varied between 100 and 167 wolves, harvest rates varied from 20–63% of that autumn population. Since wolf control ended in 1994, the annual harvest of wolves within the study area has averaged 33%, and autumn population size has averaged 128 wolves at a density of approximately

11.6 wolves per 1000 km^2. Harvests by hunters and trappers, in the absence of prescribed wolf control, appears to be regulating the wolf population at a level approximately 25% below the autumn 1993 precontrol density.

II. SUMMARY OF WORK COMPLETED ON JOBS IDENTIFIED IN ANNUAL PLAN THIS PERIOD

JOB 13: Analyze data and prepare figures and text for publication and oral presentations of the data.

During the current reporting period I continued to compile and edit data collected during the 1999 field season. I entered 408 wolf locations and 209 pack locations into the radio location database which now contains nearly 6000 records. In addition, I completed a 20-page narrative detailing the history of 25 wolf packs subjected to wolf control during the period 1993–1995.

JOB 14: Write annual progress reports summarizing cumulative data and write final report at the end of the study period.

The progress report covering the period 1 July 1999–30 June 2000 was submitted in July 2000. The final report for this project is due 30 June 2002.

III. ADDITIONAL FEDERAL AID-FUNDED WORK NOT DESCRIBED ABOVE THAT WAS ACCOMPLISHED ON THIS PROJECT DURING THIS SEGMENT PERIOD

No additional work was completed.

IV. RECOMMENDATIONS FOR THIS PROJECT

The fieldwork phase of this project is completed, and the final report will be prepared during the next reporting period. No recommendations are being made. **V. PUBLICATIONS**

No publications related to this project were submitted.

VI. FEDERAL AID TOTAL PROJECT COSTS FOR THIS SEGMENT PERIOD

There were no operating funds expended on this project during this period. Personnel costs totaled $9790.

VII. PREPARED BY:

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APPROVAL DATE: _____